RSSI

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January 6, 2003

Verneta Simon
On-Scene Coordinator, SE-5J
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

RE: 160 East Illinois Street, Chicago, Illinois

Dear Ms. Simon:

This letter is in response to your August 20, 2002 letter regarding the building at 160 East Illinois Street, Chicago, Illinois. You state in your letter that there are no stark indications of contamination and that USEPA would like to resolve remaining issues associated with the building. The owner of the building, Mark Goodman & Associates, Inc. (MGA) believes that there are no significant indications of contamination and MGA also would like to see remaining issues resolved. MGA were pleased to find from your letter that USEPA is able to officially state that the building shows no indications of contamination.

The Lindsay Light Company's thorium processing operations that are believed to have caused the contamination described in your letter probably started in 1915. The Brokers Building, subsequently known as the Kieffer Building, 160 E. Illinois Street, was built in 1908. There is no indication that any radioactive material from the processing operations could be under the property at 160 E. Illinois Street. Similarly, no evidence exists that any operations associated with Lindsay Light occupied 160 E. Illinois Street.

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On July 21, 2000 a radiological survey of 160 E. Illinois was performed. This survey found a single area of slightly elevated radiation levels attributed to brickwork. No other area in the building had any evidence of radiological anomalies. On October 18, 2000, down-hole measurements were made and samples were collected from bore-holes in and around this building. USEPA asked for, and was granted, permission to observe the measurements and sample collection. USEPA did not send its representative on the scheduled day nor did USEPA provide any information on specific protocols to be followed in its absence. Again, no radiological anomalies were found.

In your August 20, 2002, letter, you raise a number of issues and refer to Phase II investigations performed in 2000. Our responses reflect the contents of the reports of these investigations. Your letter contains a number of statements, which are not supported by the reports you referred to.

You stated, "the interior radiological survey, almost totally, collected data in the vicinity of the exterior walls. Only three data points were collected for the central floor area, which constitutes the predominant area in the building. Thus, there is no data for most of the floor space in the building;"

RSSI reported, "During the survey, readings were taken in accessible areas throughout the building. Except as indicated on the attached drawings, readings were at background, 8,000 cpm near exterior walls, and 4,000 cpm away from exterior walls." The report contains at least 15 data points where elevated readings were observed away from exterior walls.

You stated, "the cause of elevated readings on the 6th floor was attributed to naturally occurring thorium, commonly associated with brick. However, thorium is the contaminant of concern. The area investigated was not near brick and it was not explained how a determination was made the cause was "natural;"

RSSI reported, " On the sixth floor an area of 7,000 cpm was measured in the middle of a room near the grid point designated C-6. A Health Physics Instruments Model 7010 multi-channel analyzer was used to determine the cause of the elevated counts. The elevated counts were produced by naturally occurring isotopes in the Thorium Series, Th-232, Ra-224, Pb-214, and Bi-

214. These radionuclides are commonly present in brick. At the observed count rate, they do not appear to represent contamination from a prior industrial operation."

RSSI reported that the thorium had been identified with a portable multichannel analyzer. All thorium and the reported daughters in the thorium series are naturally occurring. If the building is renovated, exposing the described area, the area will be fully characterized. USEPA will be informed of disposal plans for material found to contain elevated concentrations of radioactive material.

You stated, "readings in the alley north of the building were elevated in the surface layer when USEPA observed your investigations on July 21, 2000, but this data was not mentioned in your report. One explanation for the elevated readings is thorium contamination."

RSSI reported, " Similar results of 9,500 cpm were measured in the alley on the north side of the building." Three elevated readings in the alley were reported.

You stated, "soil samples taken from all 6 boreholes outside the building were not taken at the location of highest gamma meter readings as the Methodology specified. Thus maximal soil concentrations may be higher than concentrations reported;"

The comment about, "the Methodology," is unclear. Had USEPA been present on the scheduled day, additional samples could have been collected at sites requested by USEPA. Soil boring performed outside the building was for geotechnical purposes. Down hole measurements and sample collection were incidental to the primary purpose of the activity. MGA has no objection to USEPA collecting additional boring samples in the alley. If the building is demolished, USEPA shall be provided with the opportunity to perform soil borings before a new structure is started.

You stated, "soil samples were taken from 2 foot cores, not 6 inch cores that correspond to the USEPA's regularly used cleanup criterion. Thus, soil concentrations could be diluted with regard to cleanup criterion;"

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This comment about, "2 foot cores, not 6 inch cores that correspond to the USEPA's regularly used cleanup criterion," is unclear. Had USEPA been present, additional samples could have been collected following USEPA's recommendations. Again, MGA has no objection to USEPA collecting additional samples in the alley.

You stated, "it was not clear if soil samples were sifted through quarter inch screen as USEPA does Streeterville projects. If soil was allowed to retain larger objects, the measured soil concentrations may be to low."

It is true that the EPA has been known to bias samples by screening. MGA has no objection to USEPA screening samples it collects in the alley.

We believe the issues in your letter have been addressed and that issues inside the building are resolved. We will contact you if changes are made in the building and additional survey results can be provided to USEPA. If you have any questions or require additional information, please contact me at 847-965-1999.

Sincerely,

Eli A. Port, CHP, CIH, P.E.

pc: Naren Prasad, City of Chicago - Department of Environment
Benet Haller, City of Chicago-Department of Planning and Development
Troy Imke, Mark Goodman & Associates, Inc.

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